SERVICE BULLETIN

Reference number:	**SB-08-0315V4**	**Issued: 29 June, 2017**
Subject:	**SportShift Clutch Driveability Problems**	
Model(s):	**V8 Vantage S and V8 Vantage SportShift ASM only**	
VIN Range:	**All V8 Vantage S and V8 Vantage with 6 and 7-Speed SportShift Transmission**	
Applicable to:	**All Dealers**	
Distribute to:	**After Sales Manager** **Executive Manager** **Service Manager** **Sales Manager**	**Warranty Staff** **Technician(s)** **Parts Staff**

Reason for Version 4 of this Service Bulletin

A large amount of this process to diagnose SportShift problems has changed. Because of the many changes to this document, the changes are not marked. Please destroy all copies of SB-08-0315V3 that you have and replace them with this Service Bulletin SB 08 0315V4.

Reason for this Service Bulletin

There have been some incidents where V8 Vantage SportShift clutches have been changed when it is not necessary. This is because a driver could think that the SportShift system and the clutch do not operate correctly. This Service Bulletin gives procedures to help repair problems with the driveability of a SportShift system. Please do the steps that follow for all clutch or driveability problems on a V8 SportShift vehicle before you raise a TSR.

It is important that the Auto-Shift Manual (ASM) control module has the newest version of the calibration file installed. This now lets you see the wear index value on 4.3 Litre engines. It also sets all the clutch parameters to the initial factory settings on all V8 engines, which makes the adaptation procedure complete more quickly.

The procedures must also be done after a new clutch is installed to make sure that the clutch operates correctly.

V8 Vantage Clutch -Learn Process

On all V8 Vantage models that have ASM installed, when the engine is started from cold, the clutch does a self-diagnosis and calibration procedure. This is to make sure that the clutch gives the best performance and driveability during the life of the clutch. It is important that a driver waits for approximately eight seconds for the procedure to complete before they push the "D" or "R" buttons or operate the paddle shift levers. If the clutch learn process is not completed regularly,

- The clutch will not stay correctly adjusted,
- There will be deterioration of the gear shift quality,
- The clutch can wear more quickly.

From August 2011 production V8 Vantage S, the LED that is in the "N" (Neutral) button on the instrument panel, will flash while the clutch does a self-diagnosis and calibration procedure. This procedure can continue for up to eight seconds.

Workshop Procedure

When you start the vehicle during the procedures that follow, use the "slow start" procedure. This will let the vehicle record the "clutch closed" values.

If the vehicle has a problem in the list that follows:

- A clutch overheat warning is shows in the DIM.
- There are unsatisfactory up-shifts below 3 000 RPM.
- Gears can disengage.

- The driveability can be unsatisfactory at low speeds,

then do Parts "A" thru "D" of the procedure first. If the vehicle continues to have problems with driveability, then do Parts "E" and "F" of the procedure.

This Workshop Procedure has the parts that follow:

- Part A - Do a check for fault codes
- Part B - Do a check of the transmission and engine management software
- Part C - Do the clutch learn process
- Part D - Do a check of the clutch control
- Part E - Do a check of the Ambient Air Sensor (AAS)
- Part F - Make sure that the brake pedal sensor is changed

Part A - Do a check for fault codes

1. Connect the AMDS.
2. Start the AMDS software

Note: ***Do not use the AMDS 2 software for V8 Vantage.***

3. Do a check for stored fault codes related to the clutch and transmission.
4. Find the cause for stored fault codes and do all related repairs.

Part B - Do a check of the transmission and engine management software

1. Make sure that the ASM control module (module) software level is at the newest level. If it is not, do Step 2 to install the correct new calibration file for the module.
2. Update the ASM control module with the latest version of the software (refer to Figure 1).

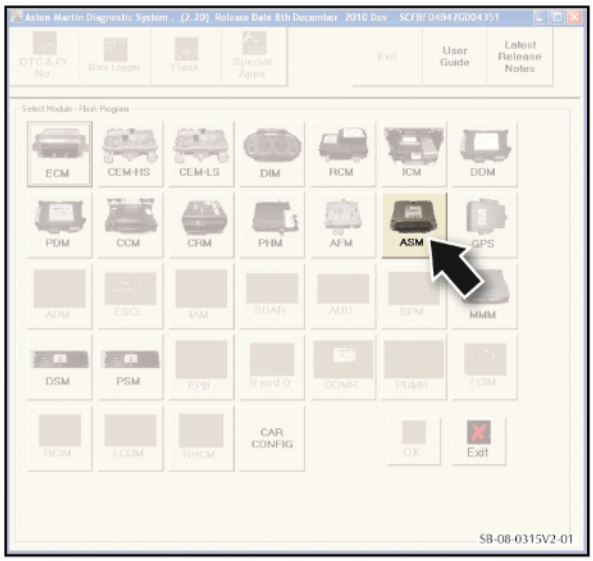

Figure 1

Part C - Do the clutch learn process

Notes: ***It is very important that you do this process fully, and in the correct sequence.***

Do not start the engine before you do the clutch-learn process.

Make sure that the engine coolant temperature is less than 35 degrees C. The clutch-learn process will not start if the coolant is above this temperature.

3. Select "Special Apps" from the menu at the top of the screen.

4. Click on "ASM Valve Test" (refer to Figure 2).

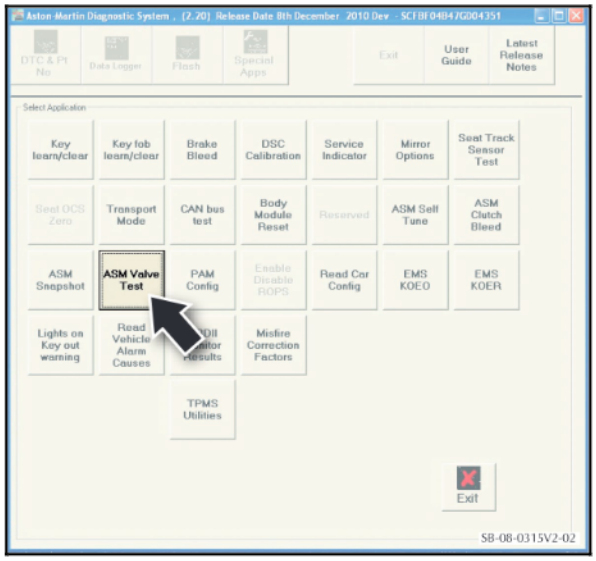

Figure 2

5. To clear the stored clutch settings from the module, click on "Clutch" under "Erase Statistics" (refer to Figure 3).

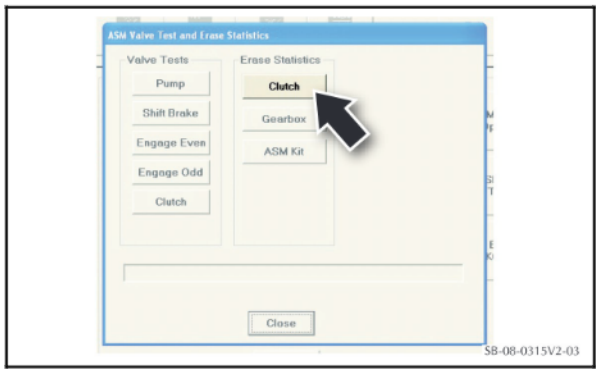

Figure 3

6. Click on "YES" to erase the stored data (refer to Figure 4).

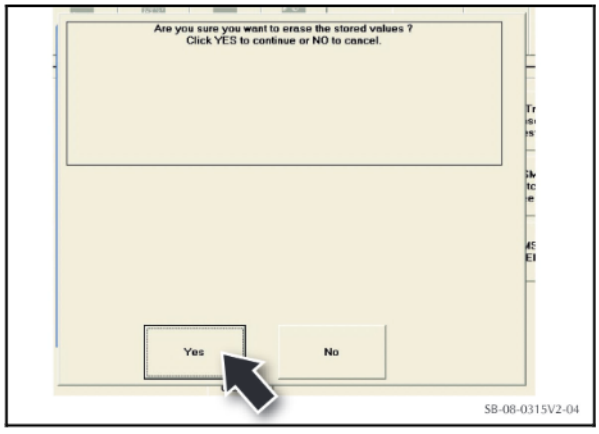

Figure 4

7. When the data is deleted, click on "OK" to finish the procedure (refer to Figure 5).

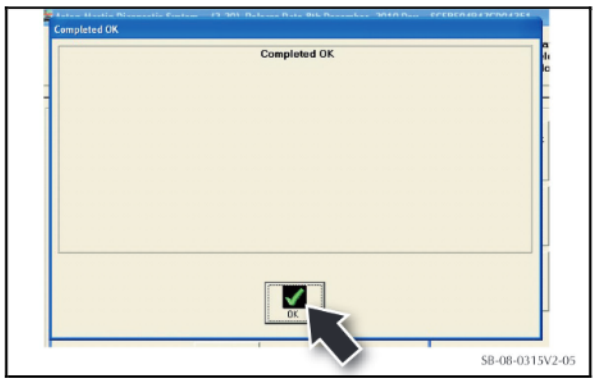

Figure 5

8. Do steps 5 thru 7 again to erase the gearbox statistics.

   Note: Do NOT erase the statistics for the "ASM Kit".

9. Click on "Special Apps" (Refer to Figure 6).

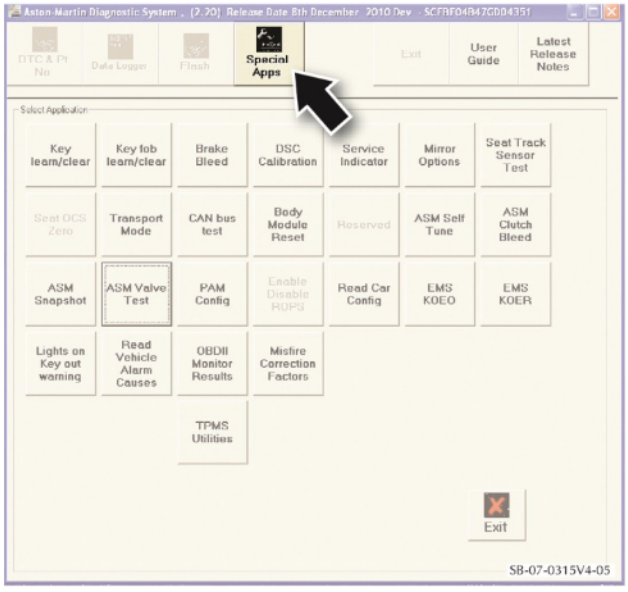

Figure 6

CAUTION: **THE PROCESS THAT FOLLOWS IS DONE WITH THE VEHICLE BRAKES OFF. MAKE SURE THAT THE VEHICLE CANNOT ROLL**

NOTE: ***For the "Self-Tune" process to complete correctly, it is important that the wheels of the vehicle can move a small amount.***

10. Click on "Self-Tune". Obey the instructions given by the AMDS application. Make sure that you remove the vehicle key when AMDS tells you.
11. Close "Special Apps".
12. Open the "Data Monitor".

13. Set the data monitor to log the PIDs that follow:

TCM-MM	ECT
TCM-MM	CluStroke
TCM-MM	CluRef
TCM-MM	EngSpeed
TCM-MM	CluSpeed
TCM-MM	CluTuneKiss
TCM-MM	ClutchWearIndex
TCM-MM	ClutchWearIndexSTC
ECM-P 0	PID_309D4_D
TCM-MM	CluTuneCL

14. If you read the clutch parameters, you can see that they are at the factory settings.

15. Before you start the engine, make sure that:
    - The "kiss-point" is at 525 (the new vehicle factory value).
    - The coolant temperature is less than 35 degrees C (95 degrees F).

16. Set the park brake to on.

17. Fully apply the brakes.

18. Start the engine and let it idle until the clutch "kiss-point" value updates on the AMDS data monitor screen.

Notes: ***On 7-Speed SportShift II vehicles, the LED in the "N" button will flash during this process.***

Do not move the accelerator pedal or select any gears during this time.

Do not continue to do the kiss-point value update if the coolant temperature is more than 50 degrees C (122 degrees F).

19. Do Steps 16 thru 18 again as necessary, until the kiss-point value stays constant +/- 3 units.

Notes: ***The engine coolant must be above 80 degrees C (176 degrees F), and,***

You will need to use a road that is not busy, for the steps that follow:

20. Set the AMDS data monitor to record.

Note: ***The Wear Index learn can take between 20 and 50 pull-aways to complete correctly.***

21. Test drive the vehicle to learn the wear-index adaption.

22. Drive the vehicle away from stopped, in first gear only, and the throttle pedal at between 5 % and 10 %. You can use the ECM-P, PID_309D4_D to help you do this as it shows percentage of throttle pedal travel. The wear-index count must not vary by more than 50 counts each update. Do the procedure again until the count is stable.

23. Do a screen-shot of the learned values, and save it. It is possible we will ask you for this data.

24. Test drive the vehicle. If there are still problems with the driveability, Do Part E that follows:

Part D - Do a check of the clutch control

1. Start the engine.

2. Compare the values between the clutch requested position ("CluRef") and the clutch actual position ("CluStroke"). The values must be in the range of ±30 counts when the clutch is in the idle position.

3. Select a gear and monitor the values. The value for the actual position ("CluStroke") must follow the clutch requested position ("CluRef") when you select the gear change.
4. Make sure that the clutch actual position ("CluStroke") is in the range ±30 when the transmission is in gear or in neutral.
5. If the values in steps 2 thru 4 above are not correct, bleed the clutch hydraulic system (refer to Workshop Manual procedure 08.00.AE), then do the steps again.
6. When you have completed all of the above procedures, test-drive the vehicle. During the test drive, do the procedure that follows to test the Ambient Air Sensor (AAS). If there are still problems with the driveability of the vehicle, speak to AskAMTech for more help.

Part E - Do a check of the Ambient Air Sensor (AAS)

7. Use a calibrated thermometer to monitor the ambient temperature outside the vehicle.
8. Do a check of the temperature that is shown on the vehicle display.
9. If the two readings from step 7 and 8 are different by more than five degrees, replace the AAS (refer to the Workshop Manual procedure 12.04.AC).

Part F - Make sure that the brake pedal sensor is changed

1. Refer to Service Bulletin SB-06-0425 and replace the brake pedal sensor.

If the way that the transmission and clutch operate is still unsatisfactory, submit a TSR for the problem. You will need to include:

- All stored DTCs,
- The vehicle log file,
- The clutch wear index and learn data,
- A list of all work done.

Part Data

Not applicable.

Warranty Data

Procedure and Labour Time

Description	Labour Time	ROT Code
Clutch adaptation procedure	0.65 hour	08.00.BB

Failure Mode Description

Select the failure modes that follow when you make a claim through the Warranty system:

Subsystem	Location	Component	Mode of Failure
POWERTRAIN	- DRIVETRAIN - TRANSMISSION - ASM	- CONTROL MODULE - TRANSMISSION (TCM) - ASM / CLUTCH	- POOR PERFORMANCE - INCORRECT OPERATION

If you have any questions related to this Service Bulletin, please contact: Aston Martin Technical Services on: +44 (0) 1926 644720, email: askamtech@astonmartin.com,
Or contact your After Sales Manager.

The English version of this Service Bulletin is written in Simplified Technical English to ASD-STE100™.